

**\*\*\*This is only a preview of the examination questions. To take the actual examination, please go back to the official bulletin, and click the examination link.\*\*\***

## **Training and Experience Evaluation**

### **Electrical Engineer**

## **Department of Energy Commission**

The California civil service selection system is merit-based and eligibility for appointment is established through a formal examination process. This examination consists of a Training and Experience evaluation used to evaluate your education, training and experience relevant to the position.

This Training and Experience evaluation is a scored component accounting for 100% of your rating in the examination process. It is important to complete the questionnaire carefully and accurately. Your responses are subject to verification before appointment to a position.

**VERY IMPORTANT: PLEASE READ THIS ENTIRE SECTION CAREFULLY.**

Before a hiring decision will be made, your responses will be verified. A hiring manager or personnel staff member will contact the references you have provided to confirm job dates, experiences, duties, achievements, and/or possession of knowledge, skills, and abilities. Failure to provide adequate references AND contact information may significantly limit our ability to make a job offer.

If it is determined at any time that you have made any false or inaccurate representations in any of the information you have provided, you may be disqualified from this process, suffer loss of State employment, and/or suffer loss of right to compete in any future State of California hiring processes. You are solely responsible for the accuracy of the responses provided.

This warning has been provided to protect your rights as a job candidate as well as the rights of the State. Be advised that you are expected to answer truthfully and accurately.

**Verification References**

Provide references who can verify the information you provide in this exam. Prior to receiving an offer for employment, these references will be contacted to confirm that you have paid or unpaid experience pertaining to the duties and requirements listed in this exam. List all references that apply, but limited to six (6) entries.

- Job Title
- Organization/Division Name and Address
- Date Worked From and To
- Name of Supervisor(s) or Person(s) Who Can Verify Your Job Responsibilities
- Contact Phone Number(s) of the above Individual(s)

**Education References**

Please provide up to four (4) colleges. Please fill out the information as accurately as possible. Prior to receiving an offer of employment, the references provided may be verified.

- School Name
- School Address
- Degree(s) Earned
- Date(s) Attended From and To

## **Section 1: Tasks (ITEMS 1-20)**

**Instructions:** Respond to each of the following items by indicating how the statement applies to you. You are required to respond to every item. Using the scales (Experience/Education, Frequency, Verification) provided below, you will rate your experience performing specific job-related tasks.

In responding to each item, use the information you listed in **Employment/Education Verification**. Please reference any paid and/or unpaid experience (e.g., employment, education, volunteer work).

### **Experience/Education: Identify how long you have performed this task:**

- If you have performed this task for **more than (3) three years**
- If you have performed this task for **more than (2) two years and up to (3) three years**
- If you have performed this task for **more than (1) one year and up to (2) two years**
- If you have performed this task for **more than (6) six months and up to (1) one year**
- If you have performed this task for **zero (0) to (6) six months**

### **• Frequency: Identify how often you have performed this task:**

- If you have performed this task **(10) ten times or more**
- If you have performed this task **(6-9) six to nine times**
- If you have performed this task **(2-5) two to five times**
- If you have performed this task **at least (1) one time**
- If you have **never performed this task**

- **Verification: –** Mark the appropriate employer or education institution where you obtained the applicable experience or education. This information is obtained from completing Section 1. This number should correspond with the rating you provided, for example, if you specify an experience/education rating of 4, the employer or education institution should have supplied you with more than five years of experience or education or a combination of the two from both. You must mark *at least* one box in this column.

## ITEMS

1. Communicate technical subjects in plain language to the general public, stakeholders and/or management.
2. Organize, conduct and participate in workshops, hearings, conferences, briefings and training sessions.
3. Serve as an electrical engineer technical resource and provide professional engineering advice.
4. Perform engineering tasks with a fluency of analytical and mathematical skills.
5. Prepare materials and documents as needed for meetings.
6. Investigate to find root cause of equipment problems and failures.
7. Use Microsoft Word, Excel, PowerPoint, Computer Aided Design and Drafting (CADD), and engineering computational software programs to complete tasks.
8. Prepare concise written documentation, reports, spreadsheets, task descriptions, work plans, and correspondence.
9. Perform a wide variety of field and office electrical engineering assignments pertaining to electrical engineering design and compliance with standards.
10. Analyze data to form conclusions and recommendations.
11. Modify electrical design prints.
12. Establish cooperative relations with others during the course of work.
13. Perform less complex electrical and electronic engineering technical analysis involved with building illumination, power installations, power density, complicated electric control systems and communication and electronic systems.
14. Participate in technical engineering design, operation, testing and/or maintenance.
15. Provide technical support for installations, testing, start-up, and commissioning.
16. Assist in the preparation of program budgets, special engineering studies, and drafting reports.
17. Prepare feasibility study reports to support recommendations for a course of action.
18. Assist or lead investigations of problems and failures related to electrical systems and equipment, and provide technical assistance in the development, design, and implement or recommend corrective action.
19. Manage engineering contracts to develop designs and specifications.
- 20.** Inspect materials for completeness and conformance to plans, specifications, and applicable codes during fabrication, assembly, installation, and testing.

## **Section 2: Knowledge, Skills, and Abilities (KSAs) (ITEMS 21-43)**

**Instructions:** Respond to each of the following items by indicating how the statement applies to you. You are required to respond to every item. Using the scales (Experience/Education and Verification) provided below, you will rate your experience performing specific job-related tasks.

In responding to each item, use the information you listed in **Employment/Education Verification**. Please reference any paid and/or unpaid experience (e.g., employment, education, volunteer work).

**Experience/Education: Identify how long you have performed this task:**

- **If you have performed this task for more than (3) three years**
  - **If you have performed this task for more than (2) two years and up to (3) three years**
  - **If you have performed this task for more than (1) one year and up to (2) two years**
  - **If you have performed this task for more than (6) six months and up to (1) one year**
  - **If you have performed this task for zero (0) to (6) six months**
- **Verification:** – Mark the appropriate employer or education institution where you obtained the applicable experience or education. This information is obtained from completing Section 1. This number should correspond with the rating you provided, for example, if you specify an experience/education rating of 4, the employer or education institution should have supplied you with more than five years of experience or education or a combination of the two from both. You must mark *at least* one box in this column.

### **ITEMS**

21. Knowledge of basic computer operation to perform daily tasks.
22. Ability to effectively communicate with coworkers, management, and/or external stakeholders to respond to requests in a timely fashion.
23. Ability to prepare materials and documents as needed for meetings.
24. Knowledge of basic Microsoft Office Suite functions to perform daily tasks.
25. Ability to gather and collect technical subject information.
26. Ability to make organized and effective written reports to present data clearly.
27. Ability to communicate in plain and simple language about science and technologies.
28. Ability to investigate and research on technical subjects.
29. Knowledge of mathematics to accurately perform computations related to electrical engineering theory.
30. Knowledge of electrical and electronic theory and practices to perform calculations related to electrical systems

- 31. Ability to develop and execute effective presentations for various groups.
- 32. Ability to interpret regulatory requirements on devices and systems.
- 33. Ability to respond to requests for information on technical matters.
- 34. Ability to collect, analyze, and interpret data to support compliance.
- 35. Knowledge of high and low voltage alternating current circuits to perform calculations.
- 36. Knowledge of direct current circuits to perform calculations.
- 37. Ability to accurately interpret electrical drawings and/or specifications to perform work functions.
- 38. Ability to make electrical calculations to accurately set electrical system parameters.
- 39. Knowledge of electrical apparatus to understand expected function to make recommendations for maintenance and/or modification.
- 40. Knowledge of National Electrical Code and Institute of Electrical and Electronic Engineers Standards to perform mathematical calculations and/or accurately assess equipment.
- 41. Knowledge of Electrical Safety Orders of the Division of Occupational Safety and Health and the National Fire Protection Association to perform work safely.
- 42. Ability to make electrical calculations to evaluate system hazards.
- 43. Ability to evaluate life cycle cost analysis and energy savings.